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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,403	03/08/2001	Bruce Benfield	STL9-2000-0072US1/1858P	5418

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EXAMINER

VAUGHAN, MICHAEL R

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,403

Applicant(s)

BENFIELD ET AL.

Examiner

Michael R Vaughan

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>Z</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-20 have been examined and are pending.

Information Disclosure Statement

An initialed and dated copy of Applicant's IDS form 1449, Paper No. 7, is attached to the instant Office action.

Drawings

New corrected drawings are required in this application because Figures 2 and 3 do not comply with CRF 1.84 as there are not clearly legible. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Formal drawings are required in response to the instant Office action.

Claim Rejections - 35 USC ' 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-12, and 15-18 are rejected under 35 U.S.C. 103(e) as being unpatentable over IBM Technical Disclosure Bulletin, Vol. 41, No. 1 January 1998, "Flexible Interface for Adding/Changing Imbedded Cryptographic Support", hereinafter IBM in view of Garrison (USP 6,275,939).

As per claims 1, 8, and 15, IBM teaches a method for integrating encryption functionality into a database system, the method comprising: providing at least two functions to support data encryption in a database system (pg. 710). IBM teaches the use of encryption functions within a database but not explicitly within structured query language, hereinafter SQL. Garrison teaches that structured query languages requests data from databases (col. 8, lines 10-12). Garrison also teaches that the data can be

encrypted and decrypted when communicating with the database (col. 2, lines 42-51). It would be advantageous to use SQL queries to make requests to a database because SQL is well known in the art. Garrison's teachings are an obvious extension to IBM system in which encryption functions are used to protect data.

In view of this, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Garrison within the system of IBM because it would allow SQL commands to be implemented to interact with the database. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

As per claims 2, 9, and 16, IBM teaches adding the at least two functions as user-defined functions in the database system (pg. 710).

As per claims 3 and 10, IBM teaches wherein the user-defined functions further comprise a first function to encrypt the user-specified data when inserted or updated in the database system (pg. 710).

As per claims 4 and 11, IBM inherently teaches the user-defined functions further comprise a second function to decrypt the user-specified data when selected from the database system. IBM clearly teaches the use of encryption to encrypt data in a database; therefore, one must be able to decrypt the data when retrieving the data from the database.

As per claims 17, IBM teaches wherein the user-defined functions further comprise a first function to encrypt the user-specified data when inserted or updated in the database system (pg. 710). IBM inherently teaches the user-defined functions further comprise a second function to decrypt the user-specified data when selected from the database system. IBM clearly teaches the use of encryption to encrypt data in a database; therefore, one must be able to decrypt the data when retrieving the data from the database.

As per claims 5, 12, and 18, IBM teaches the users can select to use an encryption algorithm such DES and even define how many bytes are in the key. The key is equivalent to a password because the user also gets to select the key, which then is feed into the DES algorithm to encrypt the data.

Claims 6, 7, 13, 14, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM and Garrison as applied to claims 1-3, 5, 8-10, 12, 15-18 above, and further in view of Riggins (WO 01/13572).

As per claims 6, 13, and 19, IBM and Garrison are silent in expressly disclosing that the data is encrypted with a password hint. Riggins teaches that the data can optionally be encrypted with a password hint as well as a password to generate a more

complex and secure encryption key (pg. 2). This would be a very secure way of generating a user password (key). IBM teaches the user can generate his/her own DES key. Using a password hint as taught by Riggins would improve the system's complexity.

In view of this it would have been obvious to one of ordinary skill in the art at the time of the invention to employ the teachings of Riggins within the system of IBM because it would generate more secure encryption keys.

As per claims 7, 14, and 20, IBM and Garrison are silent in expressly disclosing a third function to get the password hint. Examiner applies the same rationale for the motivation to combine the use of a password hint of Riggins within the system of IBM and Garrison. Riggins also teaches that the password hint is stored on a server whereby the user can retrieve the password hint (pgs. 3-4). It is obvious that one must be able to retrieve a password hint if it is to be used to help the user discover the password. In view of this it would have been obvious to one of ordinary skill in the art at the time of the invention to employ the teachings of Riggins within the system of IBM and Garrison because it would allow the user to retrieve the password hint from a safe storage facility.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R Vaughan whose telephone number is 703-305-0354. The examiner can normally be reached on M-F 7:30-4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MV
Michael R Vaughan

Examiner

Art Unit 2131


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100